

Thermal and Acoustical Systems

dBCore[®] hybrid gradient density insulation



dBCore hybrid gradient density insulation is engineered for the automotive customer that desires a product which improves the sound quality and comfort of their vehicle without the need of heavy weight barriers.

This product is unique in the industry offering exceptional transmission loss and absorption performance in one premier product. High performance polyester (PET) layers embed a mass layer to offer an optimal solution. The PET fibers benefit the vehicle by decoupling the mass layer from the sheet metal. This allows for exceptional transmission loss through the system. Gradient Density PET is used on top of the barrier layer with integrated airflow resistance properties to significantly improve the absorption characteristics.

Applications:

- Undercarpet Systems
- Dash Inners
- Rear Seat / back panel Insulation
- Localized Insulation

Acoustical Performance

- High acoustic absorption performance
- Transmission loss and vibration decoupling from decoupled mass system
- Transmission loss properties can be tuned by altering the barrier weight and decoupler properties

Features and Advantages:

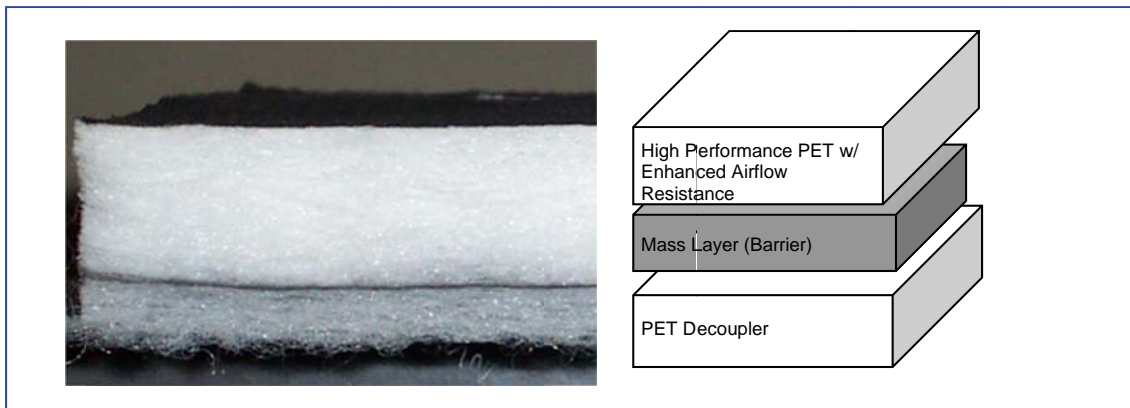
- Moldable
- Utilizes recyclable materials
- Excellent Transmission Loss
- Excellent Sound Absorption

Typical Properties:

Thickness (Range)	4 – 35 mm
Surface Weight (Range)	2700 – 4500 g/m ²
Tear Strength (ASTM D5733)	Mach. Dir – 196 N/cm Cross Dir – 65N/cm
Fogging (SAE J1756)	1 hour – 98% 16 hour – 98%
Flammability (SAE J369)	Meets FMVSS302 (< 100mm/min BR)
Temperature Resistance	Continuous - 175° C Intermittent – 204° C
Resistance to Mildew	No Mildew Growth or Odor

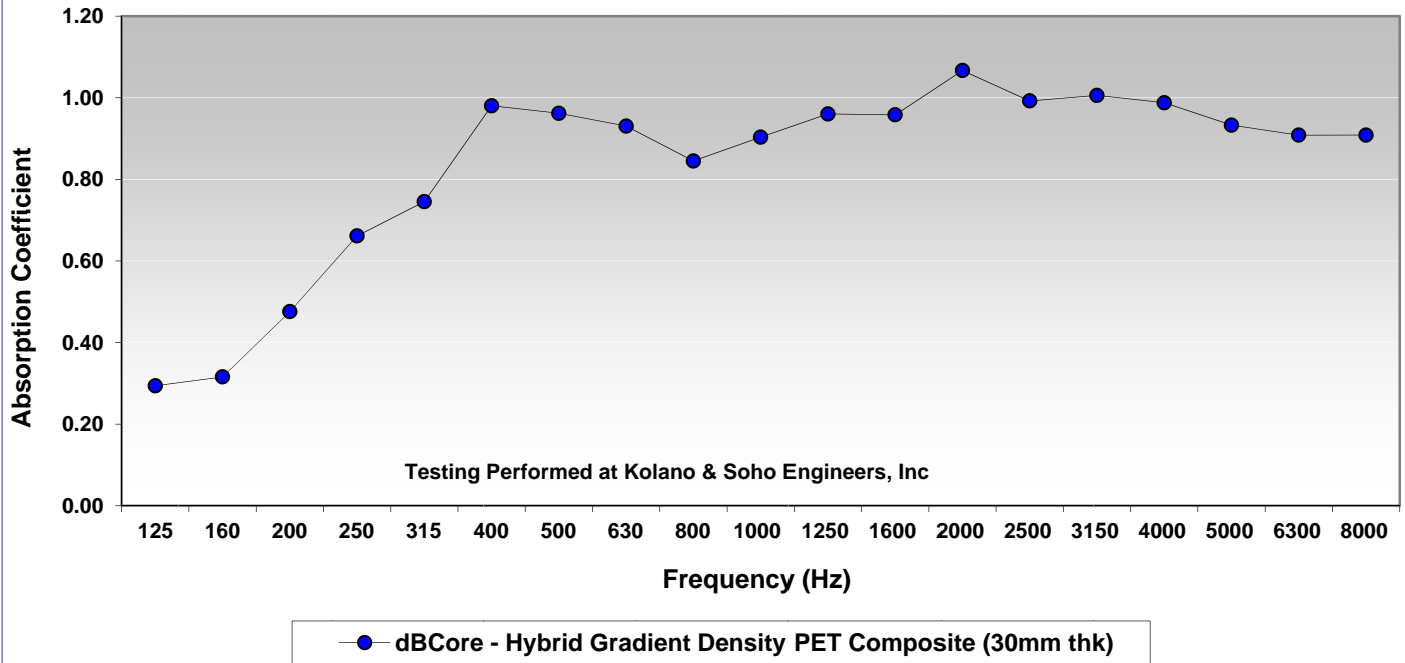
Material Construction Options:

- Polyester fiber core material in white or grey
- Acoustic barrier from 0.25 - 0.8 lb/ft²
- Tuned acoustic constructions available for improved absorption performance in specific frequencies





ASTM C423 Random Absorption



SAE J1400 Sound Transmission Loss Data

